

## ABSTRACT

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2 An ultraviolet disinfection (UV) system for blood including a UV light-ready  
3 blood purifier having at least one portal for receiving UV light input from a UV light  
4 source that is removably connected to the blood purifier via a connector at the portal.  
5 The portal is positioned to provide a focused, controllable UV light output that has at  
6 least one UV dose zone for providing effective sterilization of microorganisms and  
7 disinfection within the interior of the blood purifier. Also, an ultraviolet disinfection  
8 (UV) system for blood purifiers, the system comprising a light source positioned within a  
9 housing that is external a blood purifier and capable of being connected thereto via an  
10 optical connector. This system includes at least one source optical component positioned  
11 between the light source and the UV light output from the housing, thereby producing a  
12 focused, controllable UV light output for providing effective sterilization of  
13 microorganisms within the at least one blood purifier. A method for UV disinfection of  
14 the interior of blood purifiers is also included in the present invention.